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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,763

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EXAMINER

CLARK, MAXWELL A

ART UNIT

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4183

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,763	Applicant(s) BICHOT ET AL.	
	Examiner MAXWELL A. CLARK	Art Unit 4183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11 July 2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification Objections

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The purpose of the abstract is to enable the United States Patent and Trademark Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure. See MPEP 608.01(b).

2. The disclosure is objected to because of the following informalities:
 - a. "TMD 123" is either not shown or is incorrectly labeled in figure 1 as described in the specification (page 2, lines 30 and 32).
 - b. "reference 152" is either not shown or is incorrectly labeled in figure 1 as described in the specification (page 6, line 8).

- c. “receiver/transmitters 138, 144” is either not shown or is incorrectly labeled in figure 1 as described in the specification (page 6, line 16).
- d. “wireless station 130” is either not shown or is incorrectly labeled in figure 1 as described in the specification (page 6, line 21).
- e. “means 234” is either not shown or is incorrectly labeled in figure 2 as described in the specification (page 6, line 33).
- f. “packets 234” is either not shown or is incorrectly labeled in figure 2 as described in the specification (page 7, line 11).

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. Appropriate correction is required.

Drawing Objections

- 3. The drawings are objected to because
 - a. Figure 1 contains unlabeled rectangular box(es), the box(es) should be provided with descriptive text labels.
 - b. Figures 1 and 2 fail to show TMD 123, reference 152, receiver/transmitters 138, 144, wireless station 130, means 234, packets 234 as described in the specification.
 - c. Figures 1 and 2 are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include reference character(s) not mentioned in the

description. Some examples include: Key, 118, Senop Box, VCXO 124, 224, 226, 227 and 239.

d. Figures 4 and 5 define "DIFS" as Distributed Inter-Fame Space" while the specification defines DIFS as Duration ID field (page 8, line 8).

e. Figures 1 and 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 12-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 13 recites the limitation "access point embedded in a program" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.
7. The term "largest" in claim 21 is a relative term which renders the claim indefinite. The term "largest" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The phrase "largest possible period, in accordance with a wireless communication standard" is indefinite and relative depending on which, of many possibilities, wireless communication standard one may choose to apply. It is the responsibility of the applicant to define a definite value on the period in the claim.
8. Regarding claims 12-26, the claims are set out in such a generalized manner it is difficult to determine the meets and bounds of the claims and places undue burden

on others seeking to establish the extent of protection. The claims should be recast in a concise manner as to present a clear line of limitation to the reader.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 12-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Ho et al (US 2002/0071449 A1).
11. Regarding claims 12, Ho discloses coordinating by an access point a contention-free communication by the access point (see in particular paragraphs [0039], [0049] the hybrid coordinator –HC) by computing a time duration (see in particular paragraph [0062], figures 3,4) and communicating the duration in the distributed inter-frame space interval to one or more wireless stations (see in particular paragraph [0059]) such that a communication stream to at least one of the wireless stations is uninterrupted for the duration [TW] (see in particular paragraphs [0039], [0059],[0060], figure 4 Data+ in the DIFS interval), wherein the duration information is used to control a counter in a wireless station to prevent the wireless station from attempting to transmit for a predetermined period of time (see in particular paragraphs [0049], [0060]).

12. Regarding claim 14, Ho discloses imbedding at least one network allocation vector duration information in an IEEE 802.11 compliant data packet for transmission of an uninterrupted plurality of the broadcast/multicast frames to wireless stations to reduce contention conflicts among IEEE 802.11 compliant wireless stations (see in particular paragraphs [0048], [0049], [0061]).
13. Regarding claim 13, Ho discloses receiving digital packets from an access point (see in particular paragraph [0062]), receiving a computed duration in a distributed inter-frame space interval for transmission of a plurality of broadcast/multicast frames (see in particular paragraph [0059], figure 4 Data+ in the DIFS interval), controlling a network allocation counter in response to the computed duration (see in particular paragraphs [0049], [0060]), and receiving a communication stream that is uninterrupted for the duration in response to the state of the network allocation counter (see in particular paragraphs [0048], [0057], [0060]).
14. Regarding claim 15, Ho discloses a means for computing a duration for transmission of a plurality of broadcast/multicast frames, the duration controlling a network allocation counter in a plurality of devices associated with a wireless network (see in particular paragraph [0061]), a means to communicate the duration in a distributed inter-frame space interval to one or more wireless stations in a header packet to reduce contention conflicts among the wireless stations (see in particular paragraphs [0039], [0059],[0060], figure 4 Data+ in the DIFS interval).
15. Regarding claim 16 and 17, Ho discloses a network allocation counter that corresponds to an IEEE 802.11 compliant network allocation vector (see in particular

paragraph [0048]), a means for receiving duration for transmission of a plurality of broadcast/multicast frames of a video frame transmission (see in particular paragraphs [0029], [0030]) for downlinking an uninterrupted plurality of broadcast/multicast frames (see in particular paragraph [0059]); and means for controlling the network allocation counter in response to the duration, and controlling attempts to access the network in response to the network allocation counter (see in particular paragraph [0061]).

16. Regarding claim 18, Ho discloses an access point that receives digital packets embedded in a transmission stream comprising a node that retains control of a medium by fixing a duration field [TW] ((see in particular paragraph [0060]) and whereby the node can adjust the duration field to release the medium (see in particular paragraphs [0061], [0065]).
17. Regarding claim 19, Ho discloses fixing the duration to hold the medium until the node decides to releases the medium (see in particular paragraph [0065]).
18. Regarding claim 20, Ho discloses a node that permits bandwidth provisioning [prioritizing request so no station receives too much or too little bandwidth] in the node in order to provide quality of service [fair service] for a downstream service (see in particular paragraph [0110]).
19. Regarding claim 21, Ho discloses the duration is the largest possible period [TW], in accordance with a wireless communication standard (see in particular paragraph [0060]).

20. Regarding claim 22, Ho discloses coordinating by an access point in a first cell a contention-free session (see in particular paragraphs [0039], [0049] , each said contention-free session including multiple transmissions with other member stations in the first cell (see in particular paragraph [0059]), using interframe spaces of sufficient duration such that a single duration during a session delivers the broadcast/multicast information in a single communication stream eliminating the requirement for contending for the medium for each broadcast/multicast frame transmission (see in particular paragraph [0060]).

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

23. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho et al (US 2002/0071449 A1) in view of Benveniste (US 2002/0163933 A1).

24. Regarding claim 23, Ho discloses receiving a computed duration for transmission of a plurality of broadcast/multicast frames, wherein said computed duration controls a counter in a plurality of devices associated with a wireless network including said mobile terminal (see in particular paragraphs [0059], [0060]).
25. Regarding claim 24, Ho discloses a communication stream to a plurality of devices associated with a wireless network that is uninterrupted for computed duration (see in particular paragraph [0061]).
26. Regarding claim 26, Ho discloses a counter that prevents all but one of said plurality of devices associated with said wireless network from attempting to transmit for a predetermined period of time (see in particular paragraph [0057]).

Ho discloses the elements of claims 23-26 but does not specifically disclose the use of a mobile terminal.

However, Benveniste discloses the use of a mobile terminal for the purpose of making a connection over RF using a wireless station such as a laptop, smart phone, data collector etc. [mobile terminals] to provide a greater range of access (see in particular paragraph [0010]).

It would have been obvious to one of ordinary skill in the art at the time the application was filed to modify the invention disclosed by Ho to include a mobile terminal, as taught by Benveniste, in order to achieve the ability for the use of a multitude of available 802.11 mobile terminal devices.

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chen et al., Giles et al., Mathilde, Beach et al., Shvodian, Toskala et al., Struhsaker et al., Sherman, Cervello et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAXWELL A. CLARK whose telephone number is (571)270-1956. The examiner can normally be reached on Monday to Thursday 7:30A.M. to 5P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 17th, 2008

/Maxwell A. Clark/
Examiner, Art Unit 4183

/Len Tran/
Supervisory Patent Examiner, Art Unit 4183